

YOSEMITE CREEK BRIDGE  
Yosemite National Park Roads and Bridges  
Spanning Yosemite Creek on Northside Drive  
Yosemite National Park  
Mariposa County  
California

HAER NO. CA-102

HAER  
CAL  
22-YOSEM,  
23-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
U.S. Department of the Interior  
P.O. Box 37127  
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

YOSEMITE CREEK BRIDGE  
Yosemite National Park  
HAER No. CA-102

HAER  
CAL  
82-YOSEM,  
83-

I. INTRODUCTION

Location: Yosemite Creek Bridge carries Northside Drive across the Merced River near the base of Yosemite Falls,  $\frac{1}{2}$  mile north of the Yosemite Lodge in Yosemite Valley, Yosemite National Park, Mariposa County, California.

QUAD: HALF DOME, CA  
UTMs: 11/271480/4180540

Date of Construction: 1921-22

Designer and Builder: National Park Service.

Original and Present Owner: Yosemite National Park, National Park Service.

Present Use: Park road bridge.

Structure Type: Stone faced concrete arch bridge

FHWA Structure No.: 8800-003P

Significance: The Yosemite Creek Bridge is the oldest of the stone-faced concrete arch bridges in Yosemite National Park. The "rustic-style" bridge is designed to blend into its setting near the base of Yosemite Falls, the tallest waterfall in North America.

Project Information: This document was prepared as part of the Yosemite Roads and Bridges Recording Project, conducted in summer 1991 by the Historic American Engineering Record.

Richard H. Quin

## II. HISTORY

This is one in a series of reports prepared for the Yosemite Roads and Bridges Recording Project. HAER No. CA-117, YOSEMITE NATIONAL PARK ROADS AND BRIDGES, contains an overview history of the park roads.

### HISTORY OF YOSEMITE CREEK BRIDGE

James Mason Hutchings, Yosemite pioneer and entrepreneur, built the first bridge over Yosemite Creek at this spot in the winter of 1866-67. That June, he informed the *Mariposa Gazette* "I have constructed a good, substantial bridge across Yosemite Creek during the winter, so that parties can now visit the foot of the lower Yosemite Fall with more comfort and less danger than formerly."<sup>1</sup> The structure was a small wooden bridge, built to provide access for guests at Hutchings' early hotel to the base of Yosemite Falls, the tallest waterfall in North America and one of the chief attractions of Yosemite Valley.\*

A major flood just before Christmas 1867 carried off all the bridges in the Yosemite Valley. Hutchings' wooden bridge was wrecked but was still partially intact.<sup>2</sup> Hutchings apparently did not replace the bridge.

The second bridge on the site was evidently another wooden structure, described by a civil engineer in the 1880s as "the little red bridge which spans the stream."<sup>3</sup> This structure was probably built under the auspices of the state-appointed Yosemite Board of Commissioners, which established a circuit road around the Valley at about this time. No information was located as to how long this bridge remained in use.

Major William W. Forsyth of the Sixth Cavalry, Acting Superintendent of Yosemite National Park in 1912, noted in his year-end report to the Secretary of the Interior that the bridge over Yosemite Creek near Camp Yosemite (roughly the location of the present Yosemite Lodge) was replaced that fall.<sup>4</sup> The new bridge lasted only about a decade. In 1920, Park Superintendent Washington Bartlett Lewis described it as a "prehistoric bridge" in a "very marked state of decay." Lewis stated that the fact that the bridge was still standing and carrying its traffic load was "beyond comprehension and contrary to all laws of engineering." He requested funding for its replacement, and reported that plans for a new bridge had already been prepared.<sup>5</sup>

Funds for a replacement bridge were quickly appropriated. In his 1921 report, Lewis reported that a new masonry faced concrete arch bridge had been completed over Yosemite Creek.<sup>6</sup> Total cost of the new structure was \$32,000.<sup>7</sup>

The single-span bridge measures 75' long by 24' wide, and carries a two-lane road with no sidewalks. The structure is crowned transversely at the center point of the semi-elliptical span, and the parapet walls parallel the sloping grade of the roadway. Behind the stonework is a reinforced concrete arch bearing the main load of the bridge, although the stone arch rings are also functional. The parapet walls terminate in low square buttresses that were

---

\* As a series of falls, Yosemite Falls is the tallest waterfall in North America (2,425 feet). Ribbon Fall, farther down the Valley, at 1,612 feet, is higher than any individual segment of Yosemite Falls. (Stephen Medley, *The Complete Guidebook to Yosemite National Park* (El Portal, CA: Yosemite Association, 1991), 76.

once topped by small lanterns. The 48' arch itself is defined by twenty-five cut arch ring stones or voussoirs on each side; these stones have rough edges on the bottom or exposed face of the span. This arch springs directly from the abutments, and is not connected by a key joint. The wing walls and buttresses are skewed slightly. A course of granite coping stones overhang the parapet walls. The roadway is surfaced in asphaltic concrete,<sup>8</sup> additions of asphalt have raised the grade somewhat.<sup>9</sup>

The western pier of the bridge was undermined and partially washed out in September 1935. Emergency Conservation Works personnel replaced the washed-out section in concrete, and installed rock rip-rap in the lower channel to try to prevent future occurrences.<sup>10</sup>

A bridge safety inspection report by the Federal Highway Administration in 1977 found the structure in good condition, but noted that the creek was beginning to scour the abutments.<sup>11</sup>

The bridge continues to serve its original function of bearing the north Valley circuit road ("Northside Drive") over Yosemite Creek. Extremely heavy traffic loads are borne by the bridge, as every vehicle leaving the upper Yosemite Valley crosses the bridge. The entrances to the Yosemite Falls parking area and the Yosemite Lodge are located on the road just west of the bridge, and traffic is frequently backed up over the bridge. A bridle path/foot trail bridge is located along the south side of the bridge, and a bicycle path bridge on the north side; nevertheless, both walkers and cyclists still frequently cross the road bridge, despite the lack of sidewalks. Due to obstructed visibility and the heavy traffic, this seems to be a hazardous practice.

III. ENDNOTES

1. James M. Hutchings, quoted in the *Mariposa Gazette*, 8 June 1867, 2.
2. Linda Wedel Greene, *Yosemite, The Park and Its Resources: A History of the Discovery, Management, and Physical Development of Yosemite National Park, California*. 3 vols. (Washington: National Park Service, 1987), I:68, 68n.
3. Hiram F. Mills, C. E., to James M. Hutchings, n.d., reprinted in Hutchings, 376.
4. William W. Forsyth, Major, Sixth Cavalry, "Report of the Acting Superintendent of the Yosemite National Park to the Secretary of the Interior, 1912." (Washington: Government Printing Office, 1912), 8.
5. Washington B. Lewis, Superintendent's Annual Report for Yosemite National Park in "Report of the Director of the National Park Service to the Secretary of the Interior," in *Reports of the Department of the Interior, 1920*. 2 vols. (Washington: Government Printing Office, 1920), Vol. I, 252.
6. Idem, Superintendent's Annual Report for Yosemite National Park in *Report of the Director of the National Park Service, 1921*, (Washington: Government Printing Office, 1921), 200.
7. Merrill Ann Wilson, National Register of Historic Places nomination for the Yosemite Valley Bridges, August 1976, Sec. 7, p. 1.
8. See Wilson, Sec. 7, p.1.
9. Lonnie E. Moss, Bridge Safety Inspection Report, Yosemite Creek Bridge, Yosemite National Park (Denver, CO: Federal Highway Administration, Office of Western Bridge Design, 14 December 1977), 2.
10. Charles Goff Thomson, Superintendent's Monthly Report, September 1935, 6.
11. Moss, 4.

#### IV. BIBLIOGRAPHY

##### PUBLIC DOCUMENTS

These documents include reports printed by the Government Printing Office which originated in the Executive Branch and in the Congress, as well as reports and other documents originating in other government agencies, but not published by the Government Printing Office.

##### PUBLISHED PUBLIC DOCUMENTS

Greene, Linda Wedel. *Yosemite, The Park and Its Resources: A History of the Discovery, Management, and Physical Development of Yosemite National Park, California.* 3 vols. Washington: National Park Service, 1987.

Lewis, Washington B. Superintendent's Annual Report for Yosemite National Park in "Report of the Director of the National Park Service to the Secretary of the Interior," in *Reports of the Department of the Interior, 1920.* 2 vols. Washington: Government Printing Office, 1920.

--Superintendent's Annual Report for Yosemite National Park in *Report of the Director of the National Park Service, 1921.* Washington: Government Printing Office, 1921.

##### UNPUBLISHED PUBLIC DOCUMENTS

Moss, Lonnie E. Bridge Safety Inspection Report, Yosemite Creek Bridge, Yosemite National Park. Denver, CO: Federal Highway Administration, Office of Western Bridge Design, 14 December 1977.

William W. Forsyth, Major, Sixth Cavalry, "Report of the Acting Superintendent of the Yosemite National Park to the Secretary of the Interior, 1912," 8. Yosemite Research Library.

Wilson, Merrill Ann. National Register of Historic Places nomination for the Yosemite Valley Bridges, August 1976.

Thomson, Charles Goff. Superintendent's Monthly Report, September 1935.

##### OTHER DOCUMENTS

##### BOOKS

Hutchings, James M. *In the Heart of the Sierras, the Yosemite Valley, Both Historical and Descriptive, and Scenes by the Way; the Big Tree Groves, the High Sierra, with its Magnificent Scenery, Ancient and Modern Glaciers, and Other Points of Interest, with Tables of Distances and Altitudes, Maps, Etc., Profusely Illustrated.* Oakland, CA: Pacific Press Publishing House, 1886; reprint, Lafayette, CA: Great West Books, 1990.

##### ARTICLES

Hutchings, James M., quoted in the *Mariposa Gazette*, 8 June 1867, 2.

"The Matters of Yosemite -- Memorial of J. M. Hutchings and J. C. Lamon,"  
*Mariposa Gazette*, 18 January 1868, 1.